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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,725	02/15/2002	Leo M. Higgins III	2001 P 07479 US 01	2641

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EXAMINER	
SONG, SARAH U	

ART UNIT	PAPER NUMBER
2874	

DATE MAILED: 10/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/077,725	HIGGINS, LEO M.	
	Examiner	Art Unit	
	Sarah Song	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-26 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-26 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 29 May 2002 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 0603 .
4) ☐ Interview Summary (PTO-413) Paper No(s) _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Information Disclosure Statement

1. The prior art documents submitted by the applicant in the Information Disclosure Statement filed on June 26, 2003 have all been considered and made of record (note the attached copy of form PTO-1449).

Drawings

2. This application has been filed with six (6) sheets of drawings (submitted on May 29, 2002), which have been approved by the Examiner.

Specification

3. The disclosure is objected to because of the following informalities: The BRIEF DESCRIPTION OF THE DRAWINGS refers to originally filed drawings. The drawings submitted on May 29, 2002 have different Figure numbers. Former Figure 1 is new Figure 1A, former Figure 1A is new Figure 1B and former Figure 6E is new Figure 7. The BRIEF DESCRIPTION OF THE DRAWINGS must be corrected to correspond with the approved drawings filed on May 29, 2002. Similar corrections are also required in the body of the Specification where the noted figures are referenced (including paragraphs 20, 22, 24, 28, 33, 38, 46 and 52).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1-11, 14-21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (U.S. Patent 6,616,346).** Brown et al. discloses a method for connecting a first end 113 of an optical fiber 112 to a module 130 including the steps of a) positioning a transmitter 130 generally adjacent one of a first end and a second end of the optical fiber; b) positioning a receiver at the other of the first end and the second end of the optical fiber; c) transmitting an optical signal from the transmitter through the optical fiber and receiving the optical signal at the receiver; d) controlling movement with a computer 190 of the first end of the optical fiber relative to one of the transmitter and the receiver during said step c); e) monitoring the optical signal received by the receiver during said step d) with a light sensing system and the computer; and f) determining an optimal position of the first end of the optical fiber based upon said step e). See column 6, lines 1-16.

6. Regarding claim 1, Brown et al. does not specifically disclose the device 130 to be a laser transmitter and the receiver to be a laser receiver. Brown teaches that it is known to require alignment between an optical fiber and a laser diode (i.e. a laser transmitter), as set forth at column 1, lines 16-18. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a laser transmitter as the optical device 130, as taught by Brown et al. in order to couple light to/from an optical fiber to a laser transmitter with high efficiency.

7. Regarding claims 8, 18 and 26, Brown et al. discloses signal detection/generation circuits, but does not specifically disclose generating an electrical signal. However, signal detection and signal generation circuits generally generate electrical signals based on an optical signal.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to generate an electrical signal based upon an optical signal since it was known in the art that signal detection/generation circuits generate electrical signals base on an optical signal. Furthermore, it is noted that the device 130 is aligned relative to said signal generated by the circuit.

8. Regarding claim 2, see column 6, lines 11-16.

9. Regarding claim 3 and 11, see column 7, lines 17-21.

10. Regarding claims 4-6 and 20, see column 7, lines 17-51. It is additionally noted that epoxies are liquid polymers, the curing light 410 comprises a rapid cure system, wherein the curing is controlled by computer processor 190.

11. Regarding claims 9 and 10, see column 6, lines 5-11.

12. Regarding claim 14-16, Brown et al. further discloses alignment means 142 and positioning system 144. Brown et al. doesn't specifically disclose the positioning system 144 to be movable in at least 3 axes. Brown teaches that multiple-axis stages are known to provide additional range of motion, as set forth at column 8, lines 40-63. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the positioning system of Brown et al. to be movable in at least 3 axes in order to increase the range of motion available for optimizing alignment.

13. Regarding claim 7 and 17, note column 5, lines 17-25.

14. Regarding claim 21, note cameras 125 and 126.

15. **Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. as applied to claim 18 above, and further in view of Bloom (U.S. Patent 5,871,559).** Brown

et al. does not specifically disclose an atmosphere control system for controlling atmospheric conditions within the system. Bloom discloses an atmosphere control system 70. It would have been obvious to provide the atmosphere control system in the system of Brown et al. to prevent dust and other foreign particles from embedding in the device package.

16. **Claims 12, 13 and 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. as applied to claim 8 or 18 as applicable above, and further in view of Ebner et al. (U.S. Patent 4,691,987).** Brown et al. does not specifically disclose a spool about which the optical fiber is coiled, wherein the computer controls rotation of the spool, or a cutting mechanism. Ebner et al. discloses an actively controlled spool 112 and a cutting mechanism 90. It would have been obvious to one having ordinary skill in the art to provide the computer controlled spool and cutting mechanism of Ebner et al. in the system of Brown et al. to provide an organized source of a length optical fiber and to provide a means to terminate the length of fiber at a predetermined length for the aligned device.

Conclusion

17. Any inquiry concerning the merits of this communication should be directed to Examiner Sarah Song at telephone number 703-306-5799. Any inquiry of a general or clerical nature, or relating to the status of this application or proceeding should be directed to the receptionist at telephone number 703-308-0956 or to the technical support staff supervisor at telephone number 703-308-3072.

sus

John D. Lee
Primary Examiner